

APPROVED	O.G. FIG.	
BY	CLASS	SUBCLASS
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FOOTNOTES

FIG. 1

CATAAATCAGCAGCTACTAACACTCAAGCAATGCTTCAGTTGGAACTAATACCTCAGAGGCAGC
TGGTGTGAACATGCAACACGGATTACGCTCCAGTGGCACAGCAGCCACTAGGAAATTAATTTGAAAG
ACCTGACTGAATGCCCTCAGGCTAAAGTTAAGGTGGAAGGAGGACAGAAAGCAAGAGCAGACTCTTT
CAACTGAGATGAGTATTTTCAGAAAGCCTAAGATTTTACAAATGAAGGTGATCAGAGCCGTTCTCTGGGAGACA
GTAAAACTCCATTTCCAGCCTGGAGCACGTGACATTTACTCACAACAGGCATGCCAATTTACGCCCTCAN
AACTTTCCGGGCAGACAAAGCGGTGGAGAAACACTGAGGCTACCTGACCCGAGAGATCGAATCAATTC
GAGGGGATCTGAATCCACTGTGCAGGATGAATCCACTCATCACCATGGAATGCACACTTCTCTCCACTT
CTGGAACCGCAGCACCTACGGACCGCACAGCAATGCCAGTGAGTCCCTTGGAAAGGCTACTCTGATGGA
GGGTGTTATGAGCAACTTTTGTCTCCCTGAGGTGTTGTGACTCTGGGTGTCATCAGCTTGTGGAGAAAT
ATTCTGGTGATTGTGGCAATAGCCAAGAAACAAACCTGCATTCGCCCATGTACTTTTTCATCTGCAGCCTG
GCTGTGGCTGATATGTTGGTGAGCGGTGTCAAACGGATCCGAAACCATTTGTATCACCCCTATTAAACAGTACA
GATACGGACGCGCAGAGTTTACCGGTGAATATTGATAATGTCAATGACTCGGTGATCTGTAGCTCCTTGCTT
GCATCGATTTGCAGCCTGCTCTCAATTGCAGTGGACAGTACTTTTACTATCTTTTATGCTCTCCAGTACCATA
ACATCATGACGGTCAAGCGGGTTGGGATCATCATAAAGTTGTATCTGGGACGTTGCACGGTTTCGGGCGTTT
TGTTTCATCATCTACTCAGACAGCAGTGCTGTCTCATCATCTGCCCTCATCACCATGTTCTTTCACCATGCTGGCTCT
CATGGCCTCTCTATGTCCACATGTTCTCATGGCCAGACTGCACATTAAGAGAAATGCTGTCTCCCGG
CACTGGCACCATCCGCCAAGGGGCCAACATGAAGGGTGCAATTACCCCTGACCATACTGATTTGGGGTCTTTG
TTGTCTGTGGGCCCCGTTCTTCTCCTCACTTAATATTCTACATCTCTTGTCCCCCAGAACTCTACTGTGTG
CTTCATGTCTCACTTTAACCTGTATCTCATACTGATCATGTGTAATTCATCATCATCGACCCCTCTAATTTATGCACT
CCGGAGCCCAAGAACTAAGGAAACCTTCAAAGAGATCATCTGTTGCTATCCTCTAGCGGCCCTCTGTGATT
TGCTAGCAGATACTAACTGTGCAGATAGAAACGTGCATAAGAGACTTCTTTCATTTACAGAACCGGAACA
TTGTGCTTTTGATGACCCCTTTTCTCCTCTGTGTAAAGGCATGGGTGAGACTATCTGTTGTATAAATTTAAGTTC
ATGACTTTTTTTTGGAAATGGAACAATGCCCAGTCTCTGTACATTTCTAATGTCTTTGCTACTTTTTTGGCTGTA
CAATGTTAATCCATATTATAGGTTGTAGGCACATATGAATGTATAAATAAAAAA

APPROVED	O.G. FIG.	
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FIG. 2

CTAAGACCGTGGGAGGCAGCTGATGCGAACATGTGCACGCAGATTCACTCCTGGTGGCTCGGCGGCAACTC
GGAGAATTACTTGCACAGACCTCACTGAATGCCCTAGACTAAAGTTAAGGTGGAGTGAGGACAAATAAA
AAAGAAAAGAAAAGAAAAGAAAAGAAAAGAAAAGAAAAGAAAAGAAAAGAAAAGAAAAGAAAAGAAAAG
CATTTCAGAAATCGAAGATGTTACAGTGAAGGTGATCGGAGCTGTACCTGGAAGACAGTAAGAGCTCCACTGCC
AGCCTTTTGAGCACGGGACAGGTACTCAACACCTGGCAGGCCAGCTGGATCCTCAGAACTTTGGGACGCACG
GAGAGGGGAGAACATCACCGGGTCCCTGGCTGGAGAGGCCGAATCAGTCCCGAGGGGTCTGCATACACT
TGTTGCAGGATGAATCCACCTTCAGCACGGAATGCACACTTCTCTCCACTTCTGGAACCGCAGCACCTACCG
ACAGCACGGCAACGCCACTGAGTCCCTTGGCAAAGGCTACCCGACGGGGATGCTACGAGCAACTCTTCGTC
TCCCCGAGGTGTTCTGACTCTGGGGTCTATAAGTTGCTGGAGAACATTTCTGTTGATCGTGGCAATAGCCAA
GAACAAGAAATCTGCACCTACCCATGTACTTTTTCATCTGTAGCCTGGCTGTGGCCGATATGCTGGTGAGCGTTTC
CAACGGGTCAGAGACCATCGTCATCACCTGTTGAACAGTACGGATACGGACGCGCAGAGTTTCACGGTGAATA
TTGATAATGTCAATTGACTCGGTGATCTGTAGCTCCTTGTCTCGCTCGATTTGACAGCTGCTCTCAATTGCAAGTGA
CAGGTACTTTACTATCTTTATGCCCTCCAGTACCATAACATCATGACGGTGAGGGGTTGGGATCATCATCAGT
TGCACTGGCGGCTTGACGGGTGTCAGGCATCTTGTTCATCTCGGACAGTACTGCTGTCTCATCATCTGCC
TCATCACCATGTTCTCACCATGCTGGCCCTCATGGCTTCTCTACGTCCACATGTTCTCTCATGGCCAGACTGCA
CATCAAGAGAATCGCCGTCCTCCCGGCAACCGCACCATCCGCCAAGGGCCAACATGAAGGTGCCATTACCT
TGACCATACTAATTGGGCTCTCGTCTGCTGGCTCCATTCTCTCCACTTGATATTTACATCTCTTGTCCC
CAGAATCCATACTGTGTGCTTCATGTCTCACTTAACTTGTACCTCAATCTGTATCATGTGTAACCTCCATCATCGA
CCCTCTCATTTATGCACTCCGGAGCCAAAGAGCTGAGGAAAACCTTCAAAGAGATCATCTGTTGCTATCCTCTGGG
TGCCCTTTGTGACTTGTAGCAGATACTAGCTGGGACAGAGGAAGTACTAAAACATGCACCCAGACTTCT
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TGTTGCACAAAATTCAACTTTATGATGTTTGTGATGTGAAAATAATGCCAGGCTCTGTACATTGCTAATGTCAT
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TCCATTAAAAGCATATCAGTGTCTTGTATTTCACGAGGATTTGGCACTTTGGCTTGTCTTAGGAAACATAGAAAT
CATAGAATCATTAACATATGTAGCCTGATAAGTAACTTCTTATATTATATCATATCATGAAATGTGCAATTTGAAT
GTAGCATGGGGGTGATATTGAACAATAGATACTTGTGTCATTAAACAATCAACTGAAATTTTAAAGTAATAAAA
TGTGTTCACTTCTCCCTGTTGCAGAAATAAAAAA

FOOTNOTES

FIG. 3

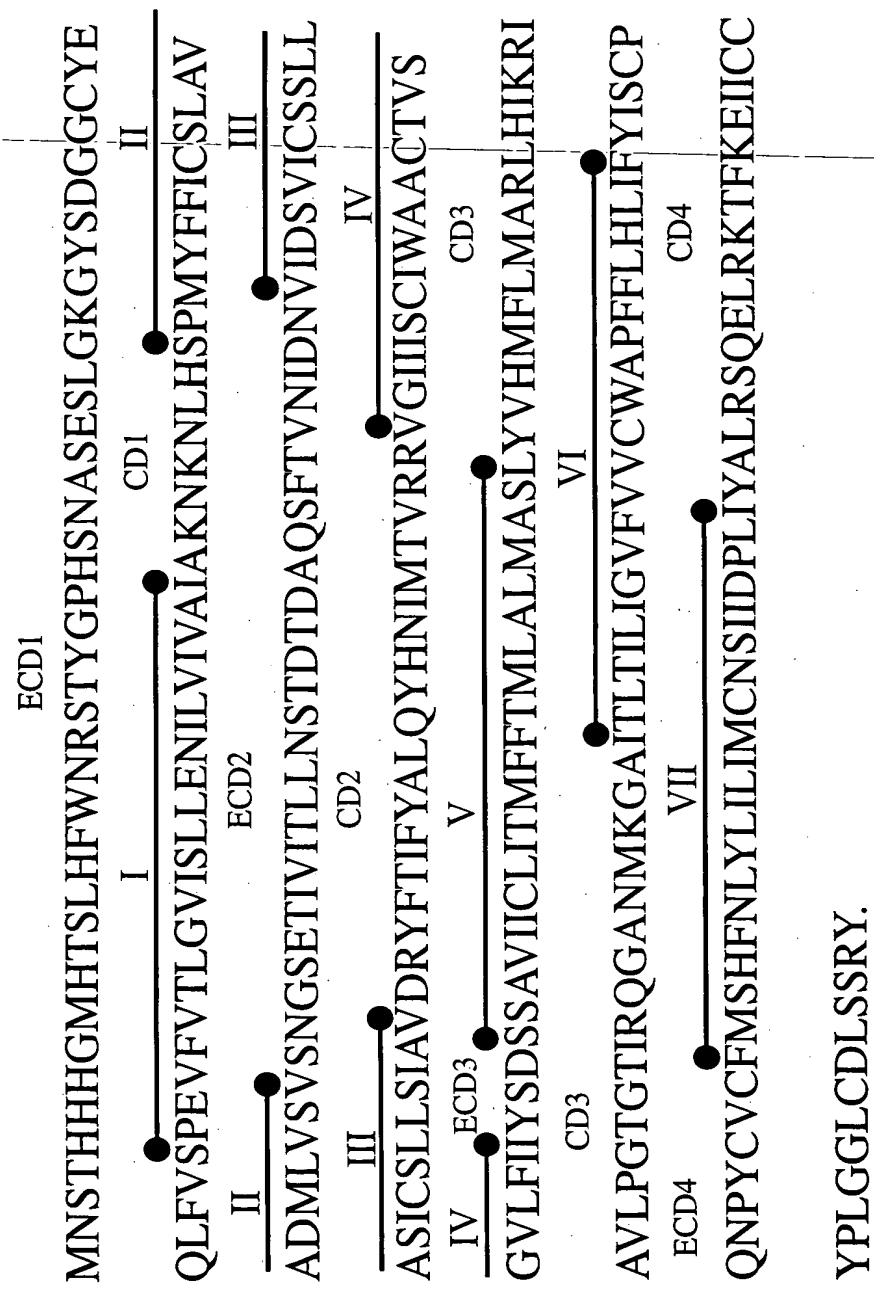


FIG. 4

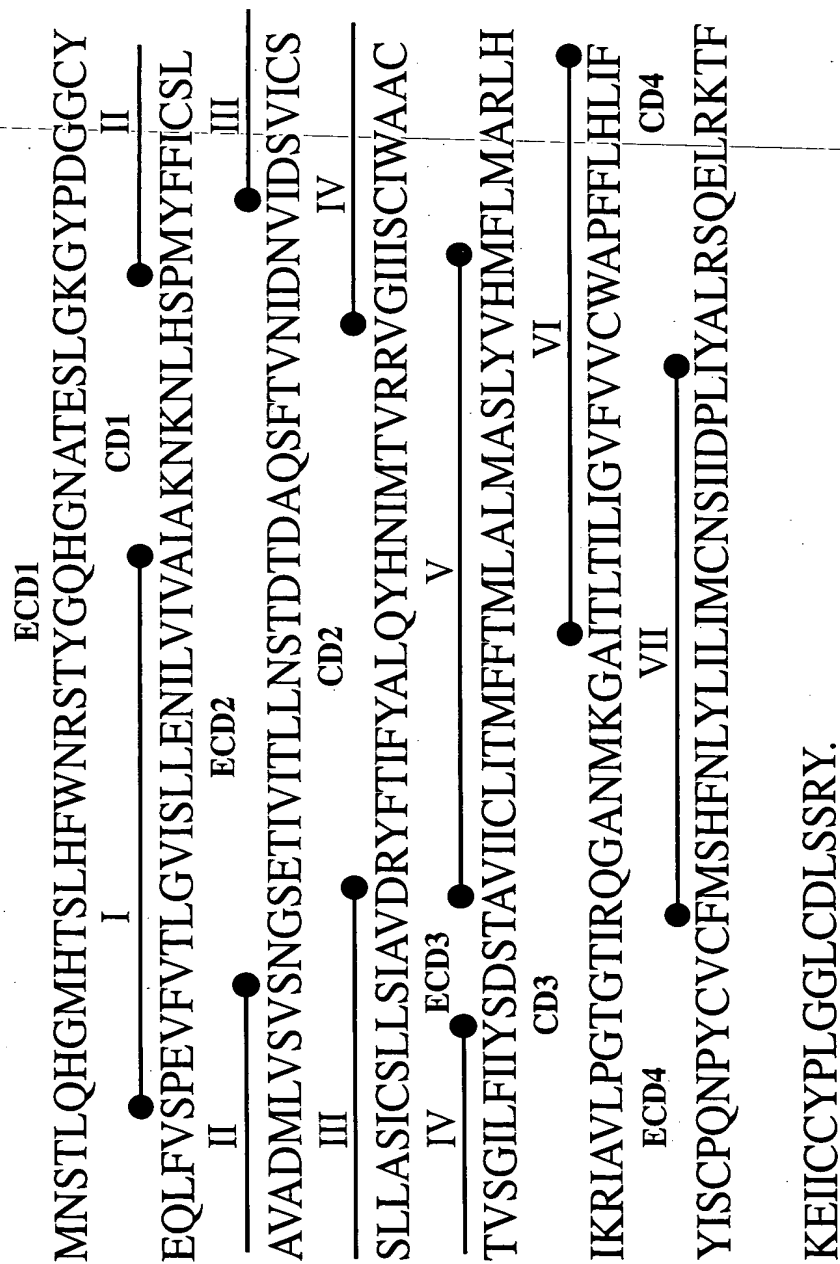
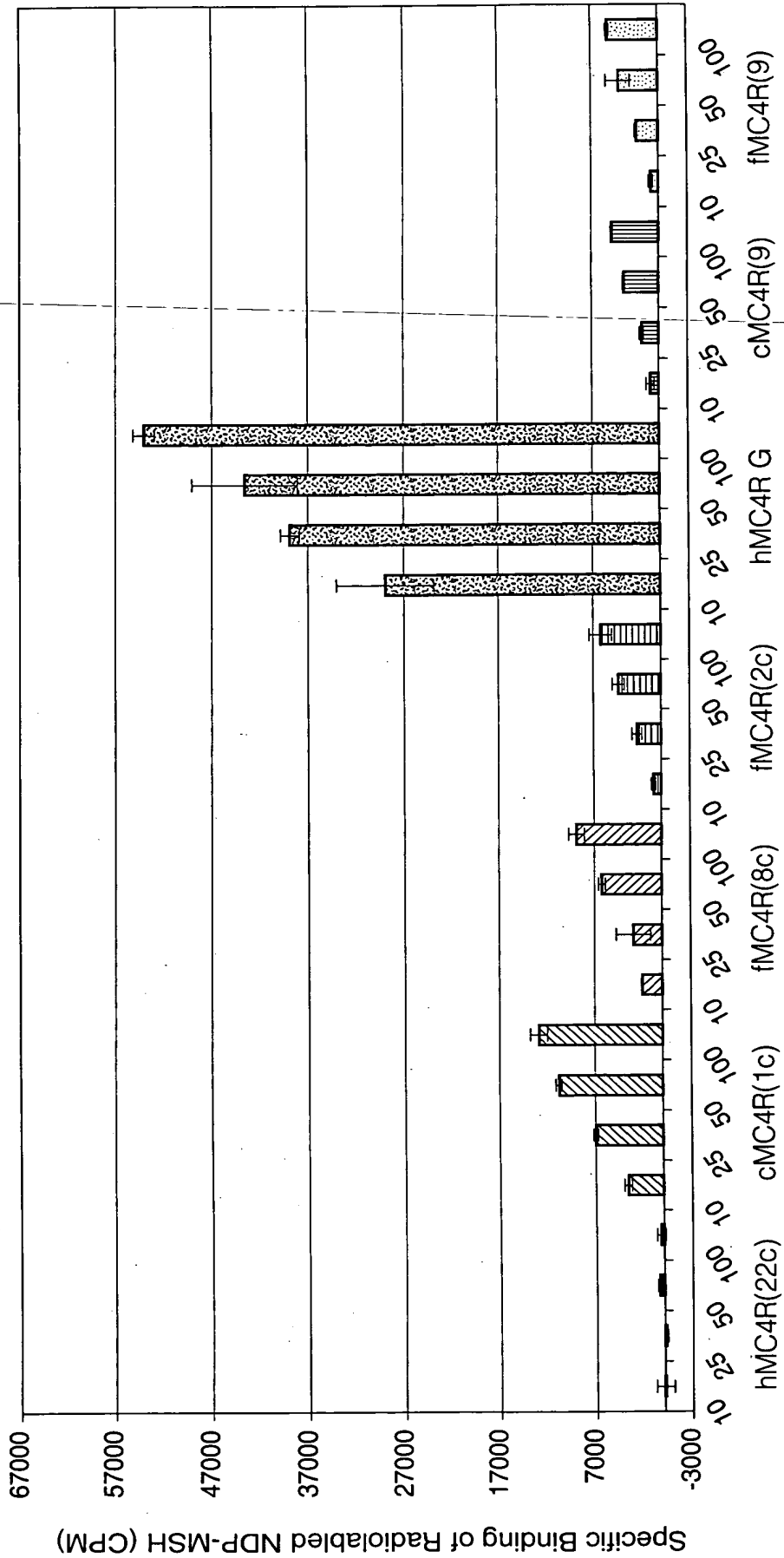


FIG. 5



FOOTNOTES

FIG. 6

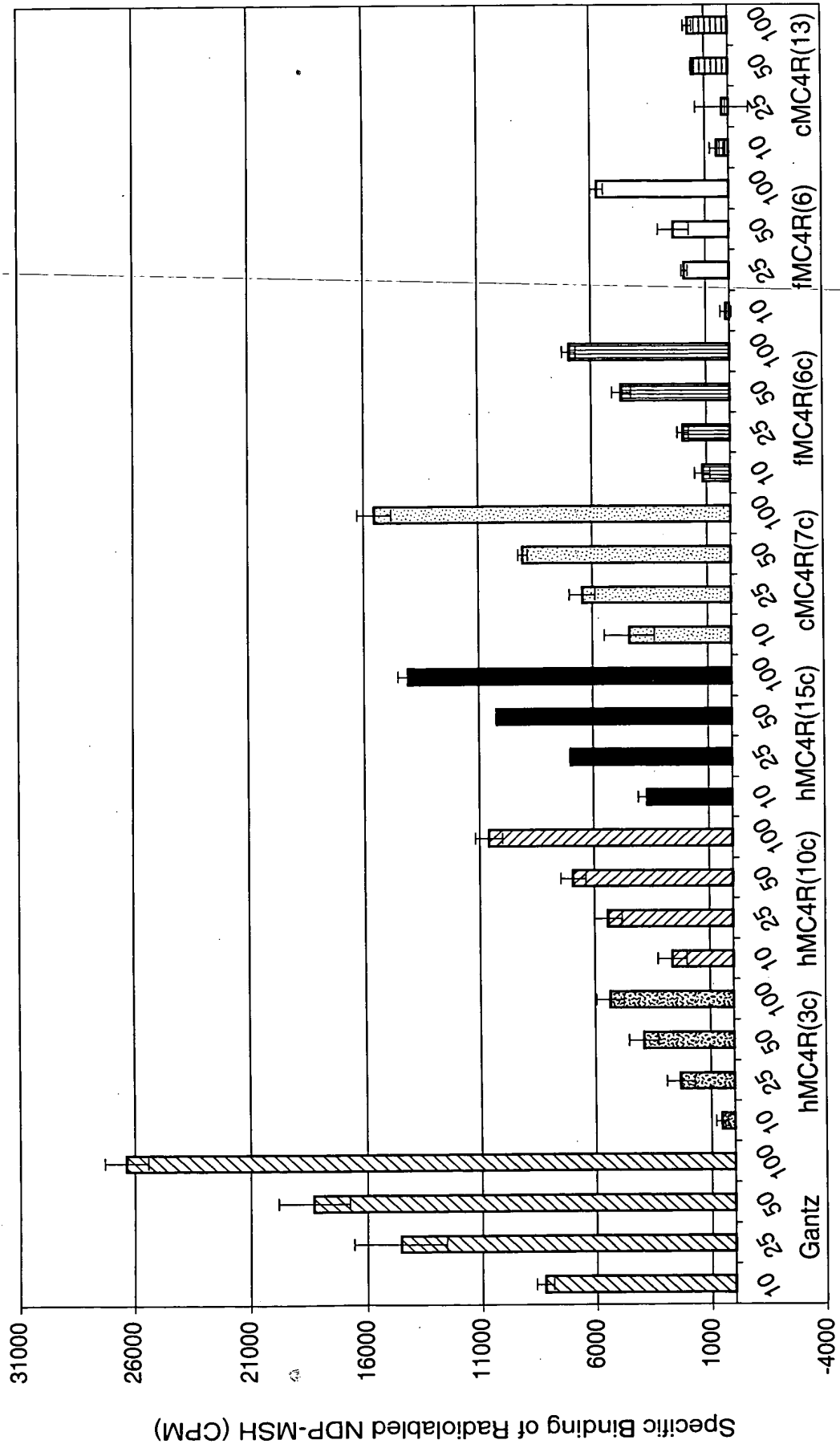
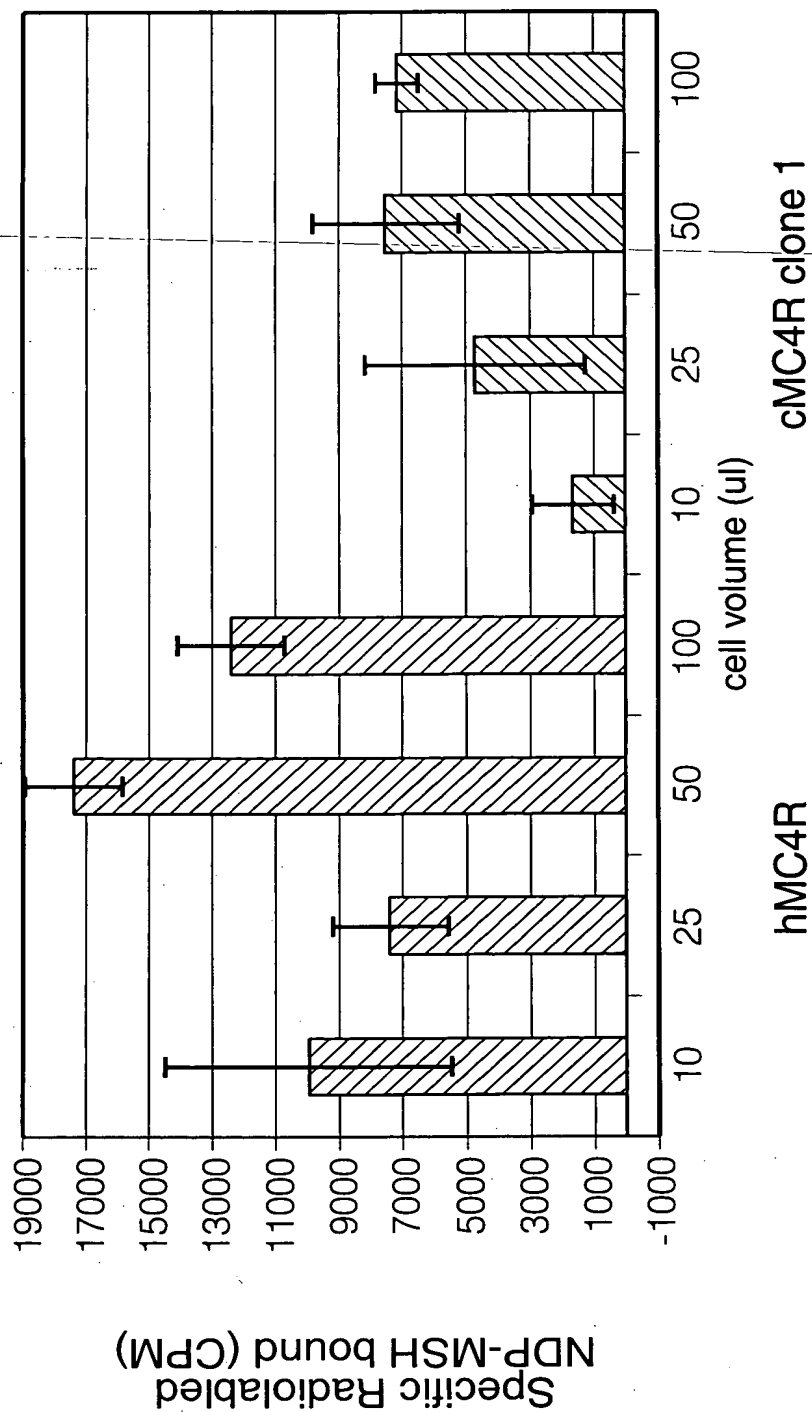


FIG. 6

FIG. 7



100150172000

FIG. 8A

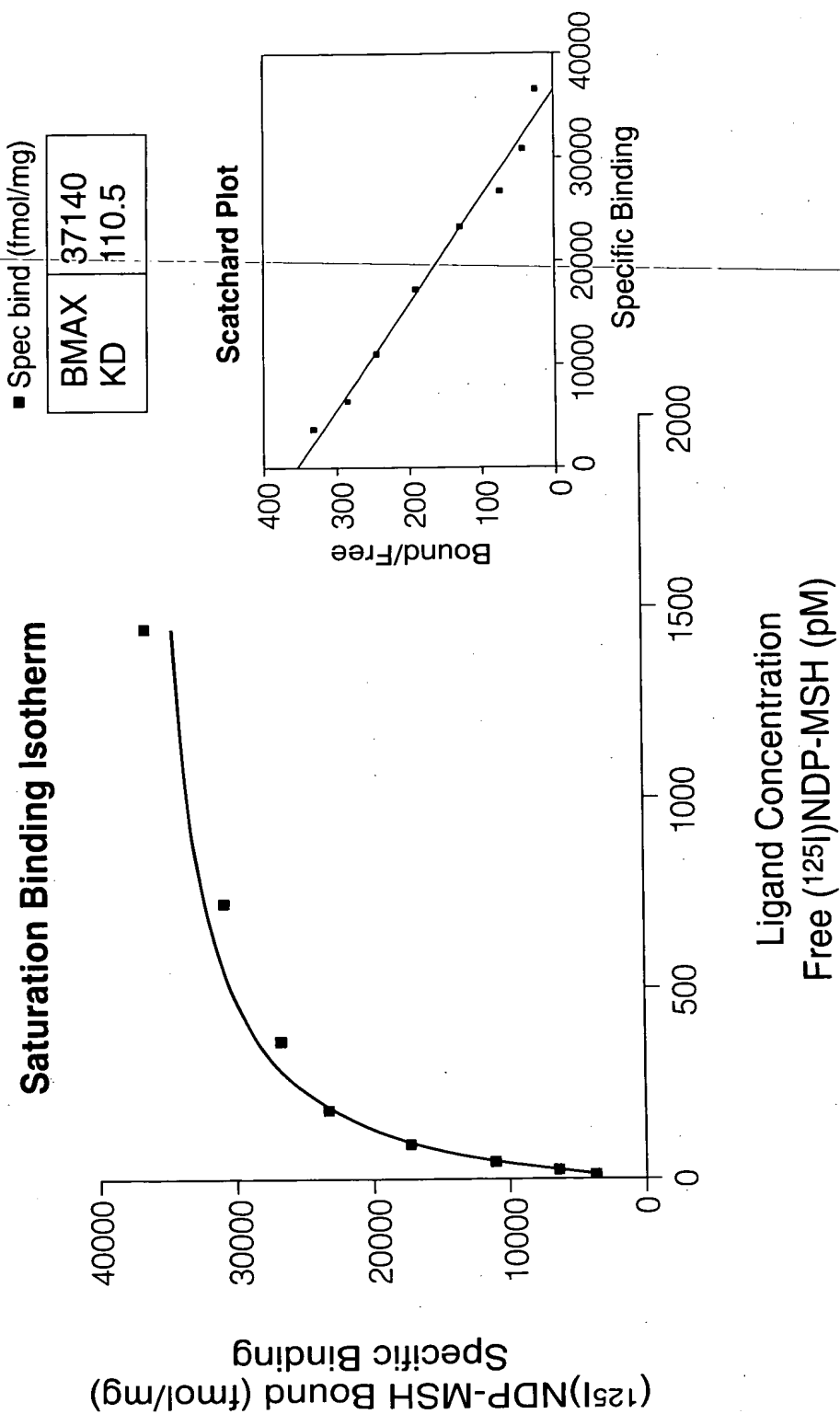


FIG. 8B

Saturation Binding Isotherm for Radiolabeled
NDP-MSH Binding to hMC3R/293 membrane

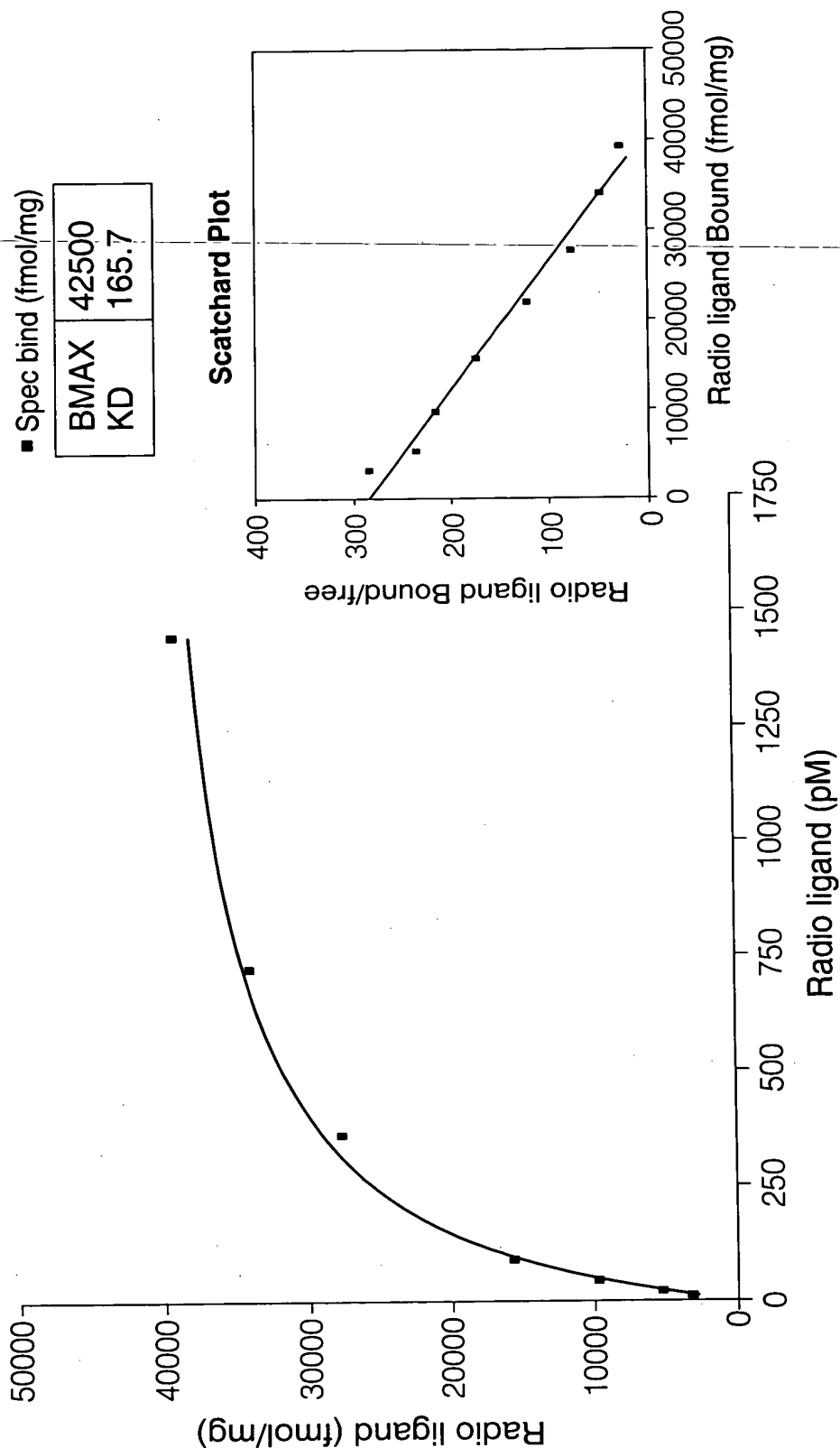
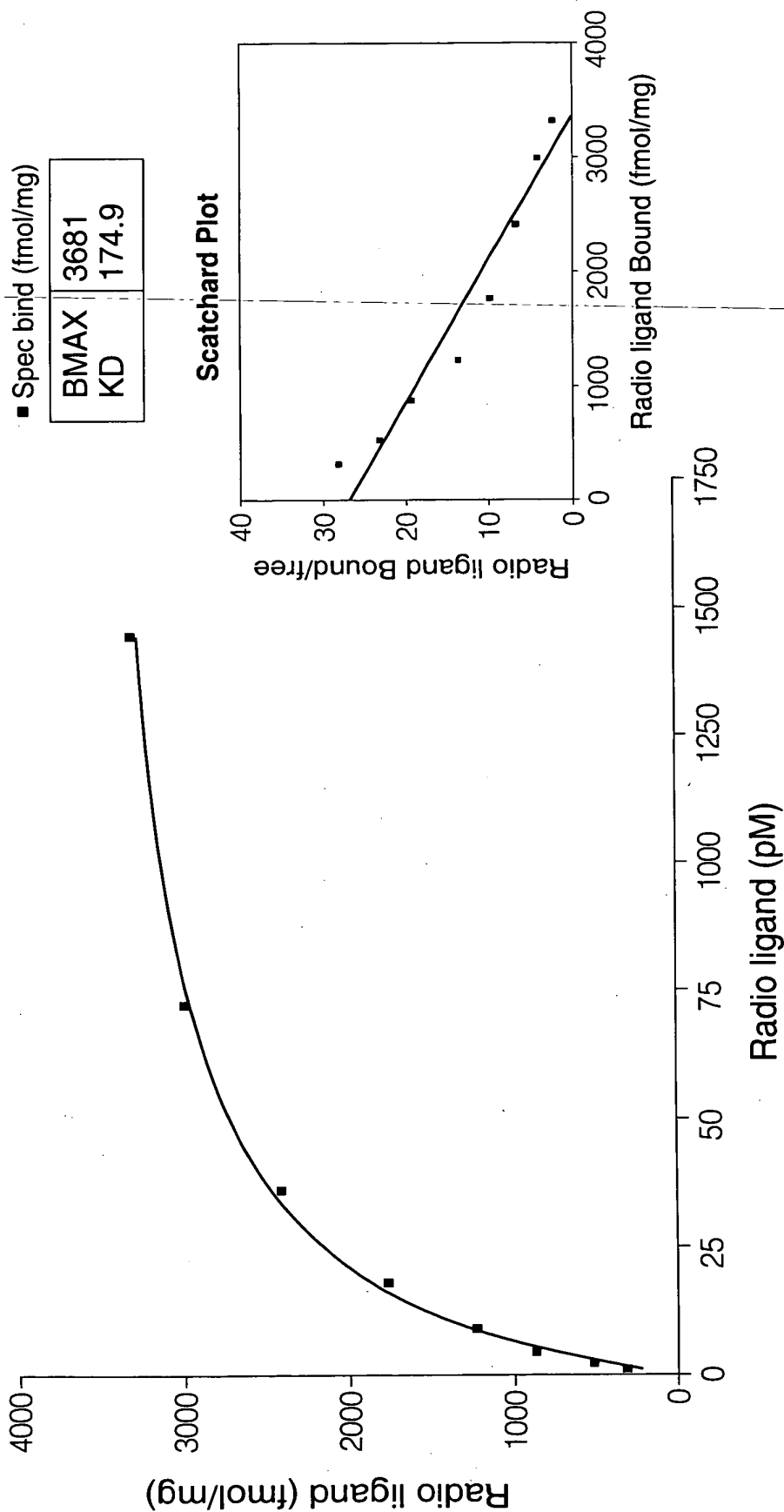


FIG. 8C

Saturation Binding Isotherm for Radiolabeled
NDP-MSH binding to cMC4R C1/293 membrane



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FIG. 9A

Membrane	IC50 (M)			Shu9119	JKC363
	ndp-MSH	MTII			
hMC4R	5.13E-10	3.95E-10		7.63E-11	1.31E-09
cMC4R	5.25E-10	4.01E-10		4.07E-11	9.71E-10
hMC3R	3.68E-10	2.48E-09		3.05E-10	1.51E-08

h=human
c=canine

FIG. 9A

FIG. 9B

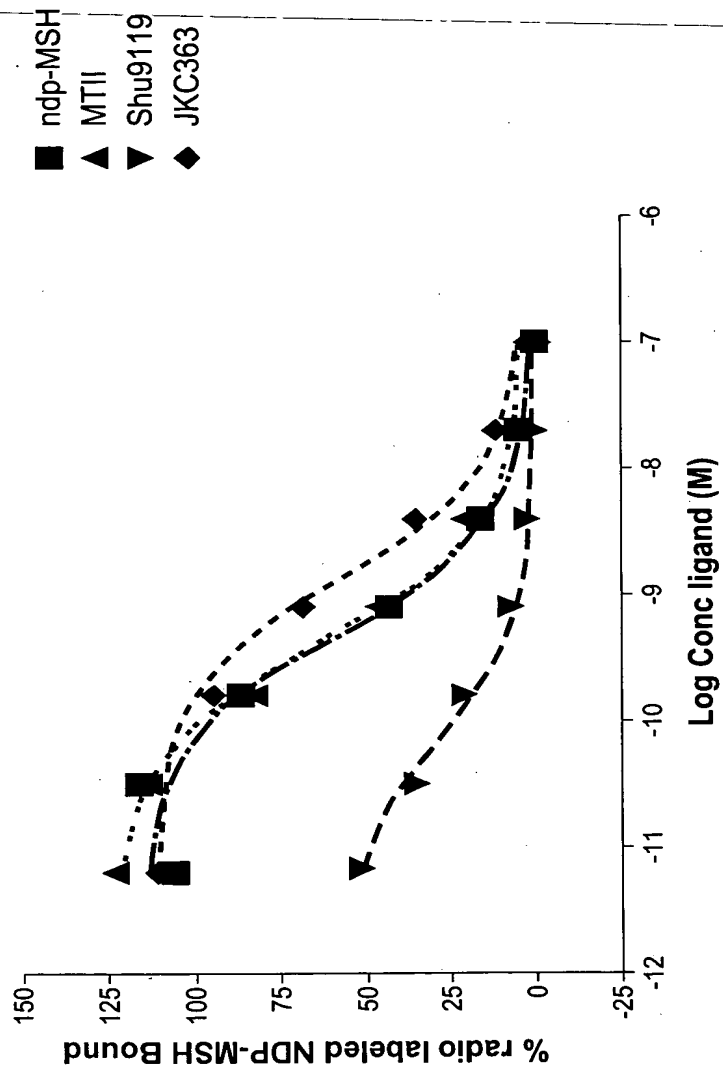


FIG. 9C

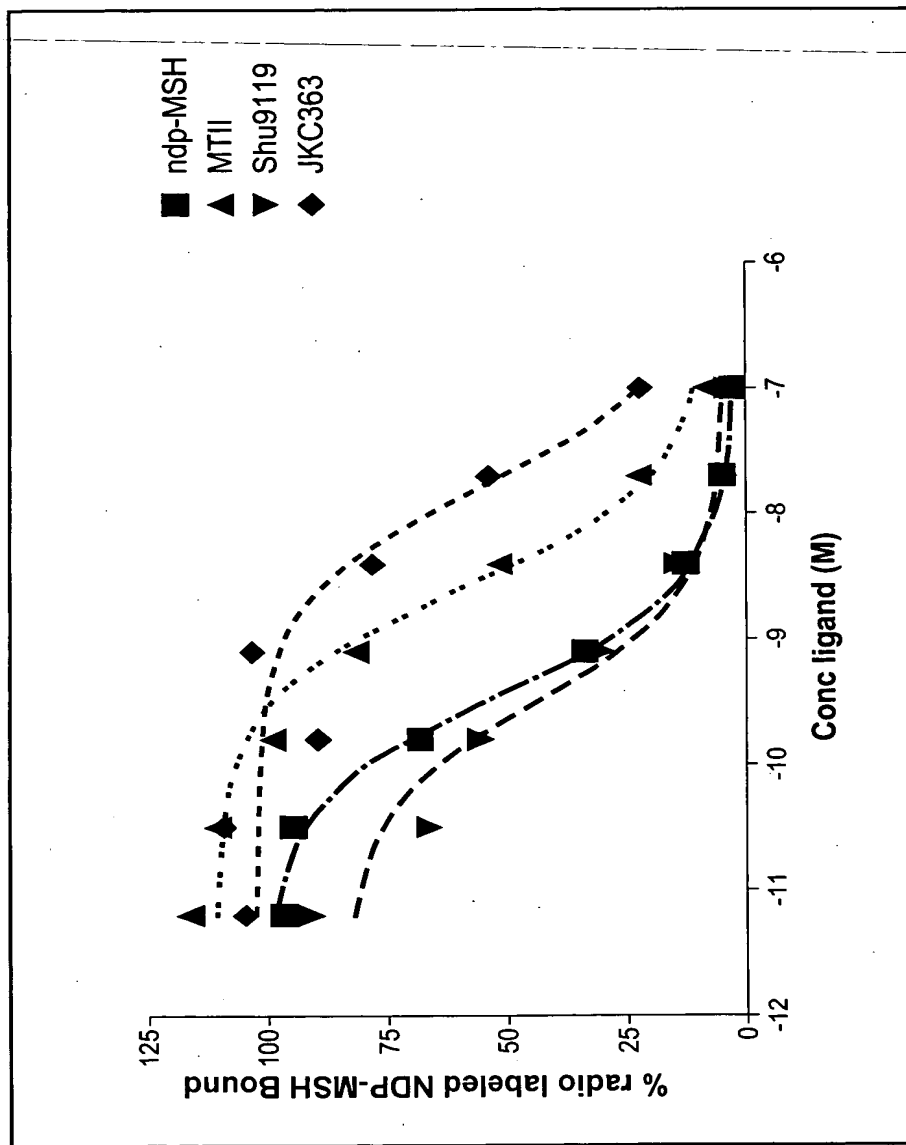


FIG. 9C

FIG. 9D

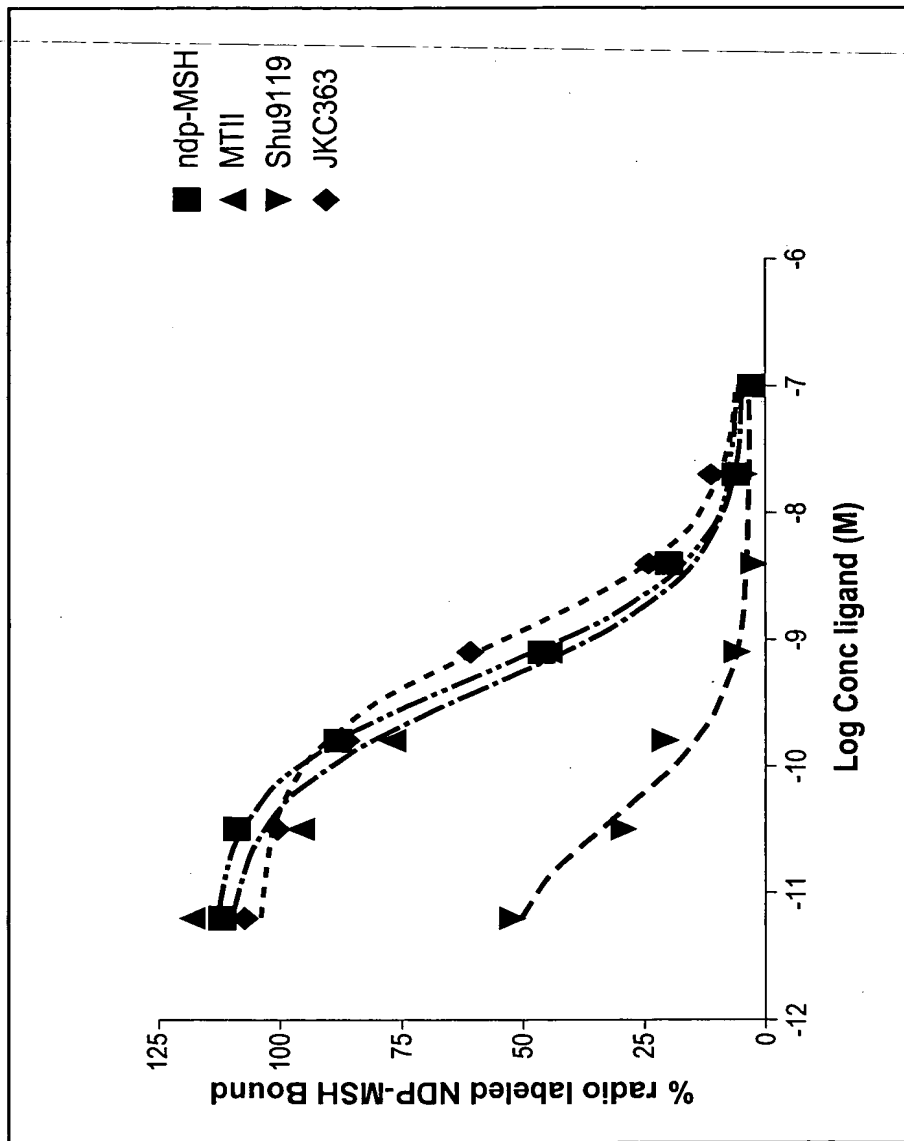


FIG. 10

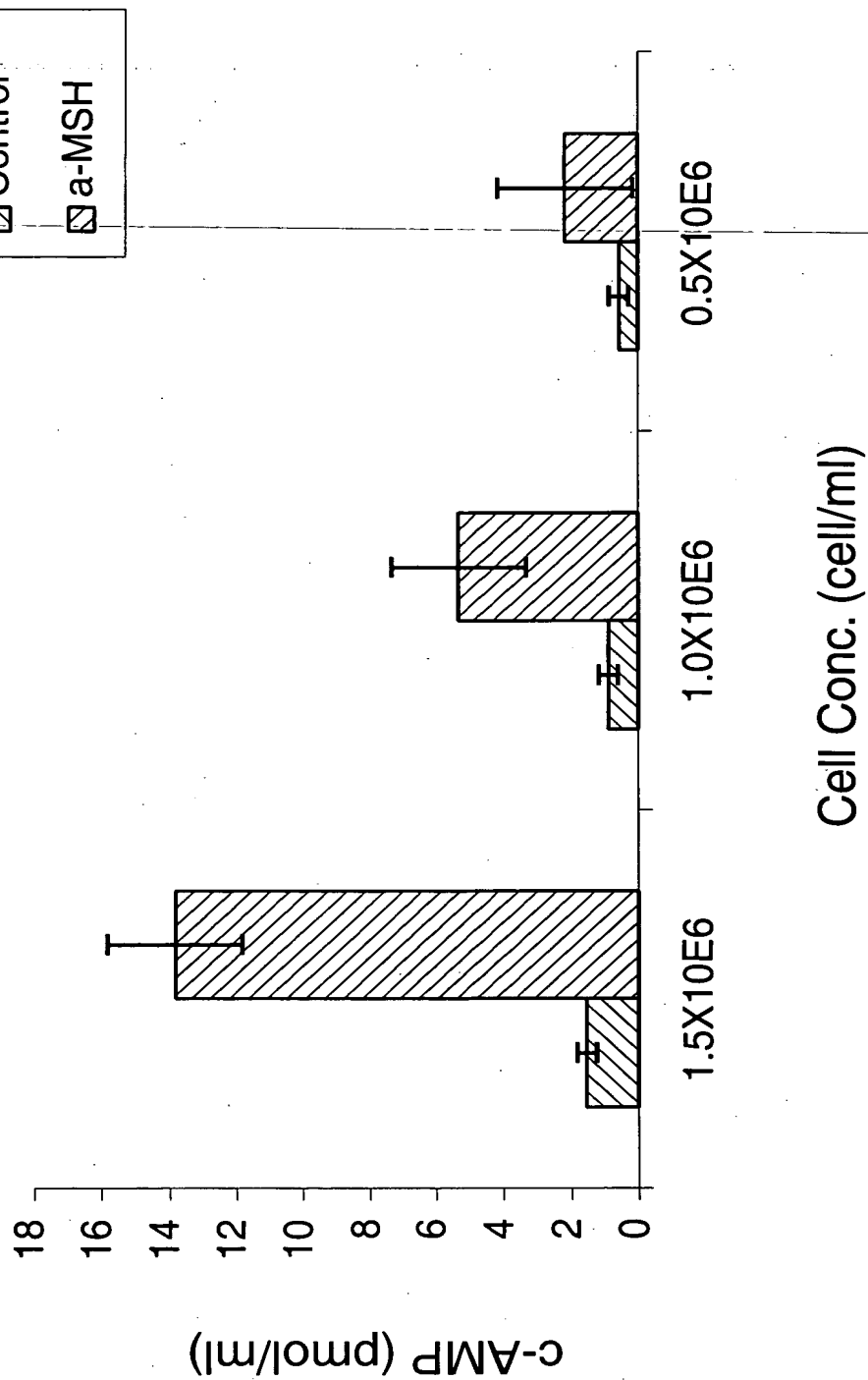


FIG. 11A

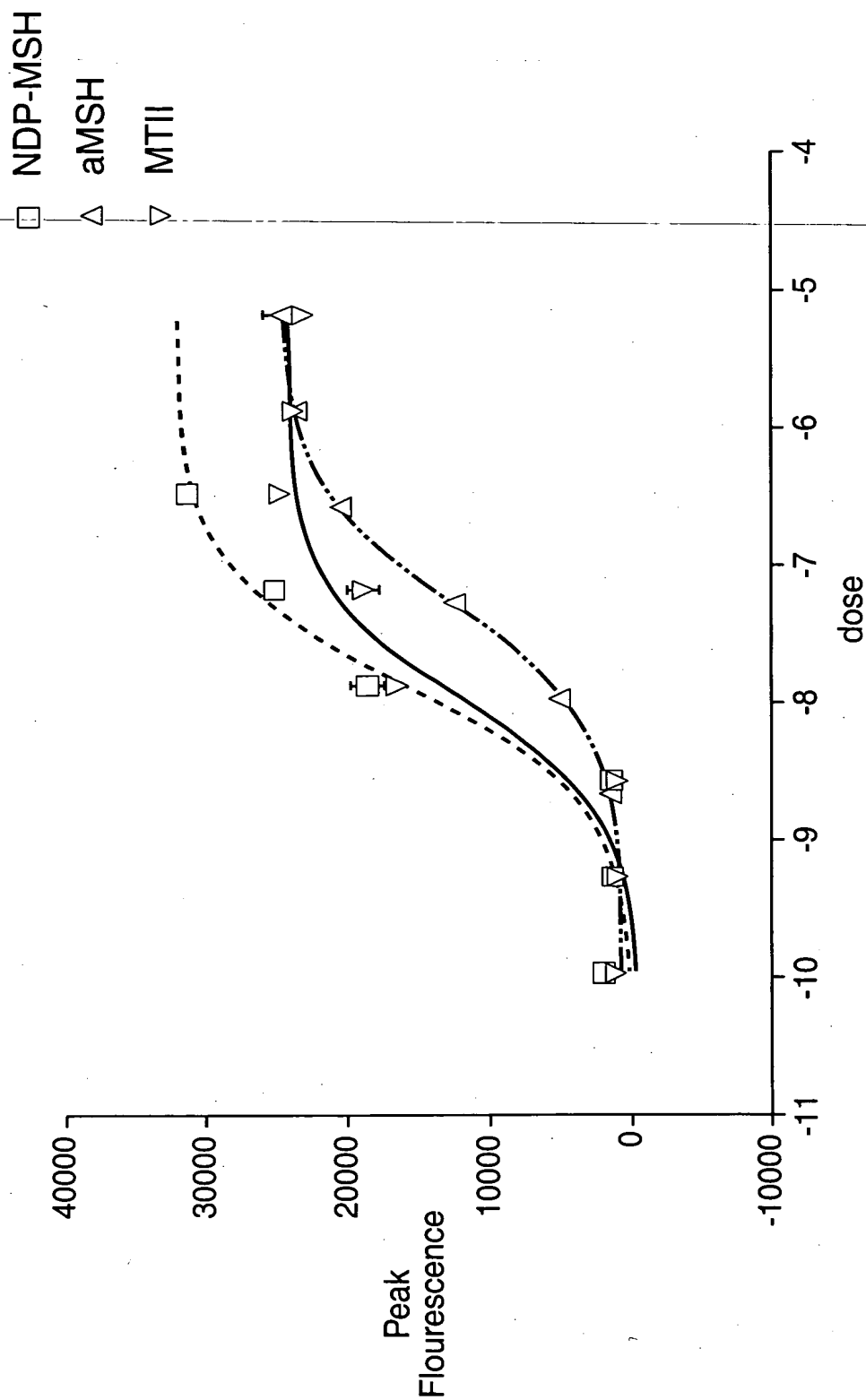
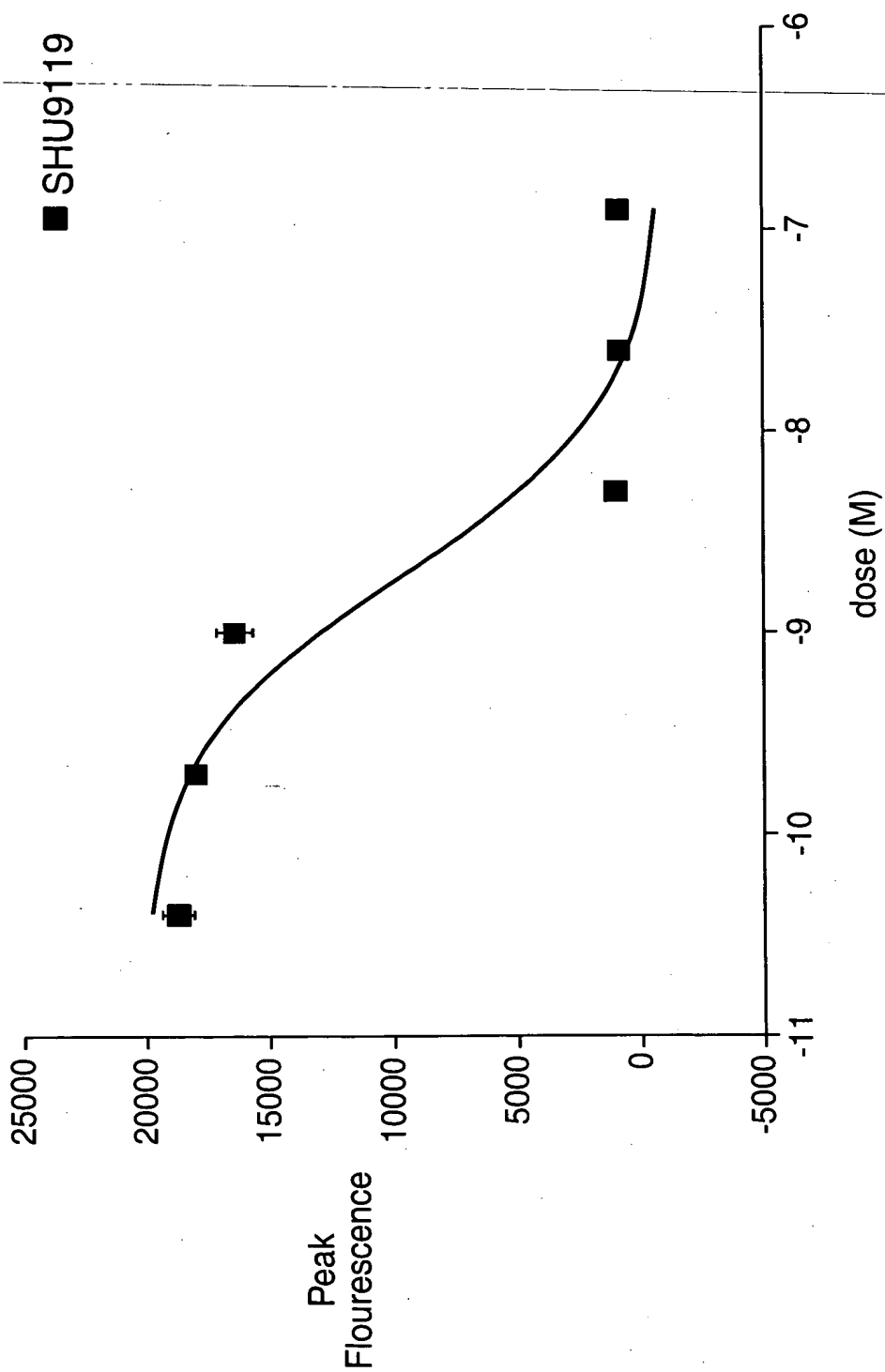


FIG. 11B



TOP SECRET

FIG. 12A

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tttgactcacggggatttccaagtctccacccccattgacgtcaatgggagtttgggttttggcaccaaaatcaacg
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CGTCTCCATGCAGGCCATGATAGATGCGATGGACCGGCTGCAGAT
CCCCTTCAGCAGGCCTGACAGCAAGCAGCACGCCAGCCTAGTGA
TGACCCAGGACCCCTATAAAGTGAGCACATTCGAGAAGCCATATG
CAGTGGCCATGCAGTACCTGTGGCGGGACGCGGGCATCCGTGCAT
GCTACGAGCGAAGGCGTGAATTCCACCTTCTGGACTCCGCGGTGT
ATTACCTGTACACCTGGAGCGCATATCAGAGGACAGCTACATCC
CCACTGCGCAAGACGTGCTGCGCAGTCGCATGCCACACAGGC
ATCAATGAGTACTGCTTCTCCGTGAAGAAAACCAAAGTGCATC
GTGGATGTTGGTGGCCAGAGGTCAGAGCGTAGGAAATGGATTCA
CTGTTTCGAGAACGTGATTGCCCTCATCTACCTGGCCTCCCTGAG
CGAGTATGACCAGTGCCTAGAGGAGAACGATCAGGAGAACCGCA
TGGAGGAGAGTCTCGCTCTGTTCAGCACGATCCTAGAGCTGCCCT
GGTTCAAGAGCACCTCGGTCATCCTCTTCTCAACAAGACGGACA
TCCTGGAAGATAAGATTCACACCTCCCACCTGGCCACATACTTCC
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GCCCCAGGACGGTGGCAGGAAAGGCTCCCGCGCGCGCCGCTTCT
TCGCACACTTCACCTGTGCCACGGACACGCAAAGCGTCCGCAGC
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CGAGATCAACCTGCTGTGACGCAGATCTAAAGCCGAATTCTGCAG
ATATCCATCACACTGGCGGCCGCTCGAGCATGCATCTAGA

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FIG. 12B

gggcccgtttaaacccgctgatcagcctcgactgtgccttctagtgtccagccatctgttgtttgcccc
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 catgaccgagatcggcgagcagccgtgggggagggagttcgccctgcgcgacccggccggca
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 gaacatgtgagcaaaaggccagcaaaaggccaggaaccgtaaaaaggccggttgcgtggcggtt
 ttccataggctccgccccct

FIG. 12B

APPROVED	O.G. FIG.	
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FIG. 12C

FIG. 12C

Gacgagcatcacaaaaatcgacgctcaagtcagaggtggcgaaacccgacaggactataaagatacc
aggcgtttccccctggaagctccctcgtgcgtctcctgttccgaccctgccgcttaccggatacctgtcc
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FIG. 13A

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 AAGCTTGACTGAGGCCACCGCACCATGGCCCGCTCGCTGACCTGGC
 GCTGCTGCCCCCTGGTGCCTGACGGAGGATGAGAAGGCCGCCGCCCG
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 GCTACGCTGCGGCCATGCAGTGGCTGTGGAGGGATGCCGGCATCCG
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 TGGACGTCGGGGGGCCAGAAGTCAGAGCGTAAGAAATGGATCCATTG
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 AGAAAATCCCCACCTCCCACCTGGCTACCTATTTCCCCAGTTTCCAG
 GGCCCTAAGCAGGATGCTGAGGCAGCCAAGAGGTTTCATCCTGGACA
 TGACACGAGGATGTACACCGGGGTGCGTGGACGGCCCCGAGGGCA
 GCAAGAAGGGCGCACGATCCCGACGCCTTTTCAGCCACTACACATG
 TGCCACAGACACACAGAACATCCGCAAGGTCTTCAAGGACGTGCG
 GGAATCGGTGCTCGCCCCGCTACCTGGACGAGATCAACCTGCTGTGA
 CCCAGATCTAAAGCCGAATTCTGCAGATATCCATCACACTGGCGGCC
 GCTCGAGCATGCATCTAGA

FIG. 13A

FIG. 13B

ctagagggccccgtttaaacccgctgatcagccctgactgtgccttctagtggccagccatctgtgtttgccc
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